

Method of Calculating Norms for Semifinished (Cont.)

80V/4115

TABLE OF CONTENTS:

Introduction	3
I. In-Process Production	5
Determination of initial data	9
Organization of work based on calculations	11
II. Size of Lots, Duration of Cycles and Intrashop Banks	15
Calculation of lots	15
Calculating the duration of cycles for lot-production sections	31
Ways of shortening the duration of cycles	42
Determining intrashop banks	45
Methods for simplifying calculations	60
III. Banks on Production Lines	62
Straight-flow lines for machining parts	62
Continuous-flow and automatic lines	69
Consolidated production lines and lot-production sections	70

Card 2/3

KARPOV, L.; TUDUPOVA, N.

Answer to the letter of comrades V.I. Meshchenko and E.V. Kovalenko.  
Trakt. i sel'khoz mash. no. 8:48 Ag. '59. (MIRA 12:11)  
(Agricultural machinery industry)

*KARPOV L.D.*

ZHURAVLEV, M.R.; KARPOV, L.D.

Mechanization of loading and unloading operations and transportations.  
Sel'khoz mashina no.6:21-25 Je '57. (MLBA 10:7)

1. Nauchno-issledovatel'skiy institut traktorosel'khoz mash.  
(Agricultural machinery industry) (Loading and unloading)

KARPOV, L.D., inzh.; TULUPOVA, N.L., inzh.

Calculations for determining the need of auxiliary workers and for setting their work norms. Trakt. i sel'khoz mash. no.3:32-36 Mr '58. (MIRA 11:5)

1. Nauchno-issledovatel'skiy institut Traktorsel'khoz mash. (Agricultural machinery industry)

ZHURAVLEV, M.; KARPOV, L.

Organization and mechanization of transport and warehouse work in  
machinery manufacturing. Sots. trud. no.8:65-72 Ag '58.

(MIRA 11:9)

(Agricultural machinery industry) (Loading and unloading)

KARPOV, L.D., inzh.-ekon.

Applying norms of unfinished production in scheduled planning.  
Trakt. i sel'khoz mash. no.10:41-44 O '58. (MIRA 11:10)  
(Agricultural machinery industry)

AUTHORS: Zhuravlev, M.R., Karpov, L.D., Engineers SOV-118-58-8-13/74

TITLE: Mechanization of Loading and Unloading Operations in Tractor and Farm Machinery Plants (Mekhanizatsiya pogruzochno-razgruzochnykh rabot na zavodakh traktornogo i sel'sko-khozyaystvennogo mashinostroyeniya)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958,<sup>12</sup> Nr 8, pp 29-31 (USSR)

ABSTRACT: The authors studied the degree of mechanization of loading and unloading operations in different plants and factories of the Union. The average degree of mechanization in 40 tractor and farm machinery plants is about 55 %, and less in smaller plants and factories. For example, it is 60 % in the Stalingrad Tractor Plant, but only 12 % in the Michurinsk plant. Causes of this unsatisfactory condition is the incapability of large specialized plants to produce enough equipment. As a consequence, 45 % of the orders for lifting and transporting equipment were met in 1957. The authors describe various loading and unloading equipment in different

Card 1/2

SOV-118-58-E-13/24

Mechanization of Loading and Unloading Operations In Tractor and Farm  
Machinery Plants

plants of the Union.  
There are 2 diagrams.

1. Industrial plants--Control systems    2. Cargo--Handling

Card 2/2



KARPOV, L.D.

Organization of transportation and storage at tractor and agricultural machinery plants. Trakt. i sel'khoz mash. 31 no.3:38-40 Tr '61.

(MIRA 14:3)

1. Nauchno-issledovatel'skiy institut tekhnologii traktornogo i sel'skokhozyaystvennogo machinostroyeniya.

(Agricultural machinery industry) (Conveying machinery)

KARFOV, Lev Dmitriyevich; PETRUSHEV, I.M., red.; GERASIMOVA, Ye.S.,  
tekhn. red.

[Potentials for economy in loading and unloading operations  
in industry; based on the example of machinery manufacture]  
Rezervy ekonomii na pogruzochno-razgruzochnykh rabotakh v pro-  
myshlennosti; na primere mashinostroeniia. Moskva, Ekonomizdat,  
1962. 319 p. (MIRA 15:10)

(Loading and unloading--Cost of operation)  
(Machinery industry)

KARPOV, L.D.

Means for decreasing production costs by improving transportation and storage operations. Trakt. i sel'khoz mash. 31 [i.e.32] no.11: 41-43 N '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut tekhnologii traktornogo i sel'skokhozyaystvennogo mashinostroyeniya.  
(Agricultural machinery industry)

KARPOV, L.D., inzh.

Economic indices of the operations of conveying and storage  
service in machinery plants. Mekh.i avtom.proizv. 17 no.7:  
45-51 J1 '63. (MIRA 16:8)  
(Industrial management)

KARPOV, L.D., inzh.

Economic analysis of the state of interplant conveying in  
machinery plants. Vest. mashinostr. 43 no.6:76-79 Ja '63.  
(MIRA 16:7)

(Conveying machinery)

KARPOV, L.D., kand.ekonom.nauk

Economic analysis of auxiliary operations at branch plants. Trakt.  
i sel'khoz mash. no.2:42-44 F '64. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut tekhnologii traktornogo i  
sel'skokhozyaystvennogo mashinostroyeniya.

KARPOV, L.D., kand.ekon.nauk

Practice and processing methods of economic information  
by branches. Vest.mashinostr. 46 no.1:84-85 Ju '66.

(MIRA 19:1)

KARPOV, L.I.; ZHDANOV, I.Ye.; MEZHENIN, A.T.

Apartment house with lower ceilings. Ger. khoz. Mosk. 33 no.3:16-17  
Mr '59. (MIRA 12:5)

(Moscow--Apartment houses)



KARPOV, L.I.

34024 KARPOV, L.I. Za Vysokoye  
Ispol'zovaniye Knopki. (O Rabotye  
chyesal'noy Mashiny) Tyekestil.  
Prom-st'; 1949, No. 10, S. 44-45

SO: Letois' Zhurnal'nykh Statey, Vol. 42, Moskva, 1949

KARPOV, L.I., kandidat tekhnicheskikh nauk.

Work of the separators. Tekst.prom.17 no.1:19-21 Ja '57. (MLRA 10:2)

1. Glavnyy inzhener fabriki imeni Sverdlova (Vladimirskaia oblast').  
(Spinning)

ZOTIKOV, V.Ye.; prof., doktor.tekhn.nauk; BUDNIKOV, I.V.; TRYKOV, P.P.;  
GINZBURG, L.M., retsenzent; KARPOV, L.I., retsenzent; ORLOVA,  
Z.M., retsenzent; TALEPOROVSKAYA, V.V., retsenzent; FINKEL'SHEYN,  
I.I., retsenzent; KOPELEVICH, Ye.I., red.; SHAPENKOVA, T.A., tekhn.red.

[Fundamentals of the spinning of fabrics] Osnovy priadeniia voloknistykh  
materialov. Pod red. V.E.Zotikova. Moskva, Gos.nauchno-tekhn.izd-vo  
lit-ry po legkoi promyshl., 1959. 506 p. (MIRA 12:11)

1. Kafedra pryadeniya khlopka Ivanovskogo tekhnologicheskogo insti-  
tuta (IvTI) (for Karpov, Orlova, Taleporovskaya, Finkel'shteyn).  
(Spinning)

KARPOV, L.I.

Convex feed plate of a carding machine. Izv.vys.ucheb.zav.;  
tekh.tekst.prom. no.1:70-77 '60. (MIRA 13:6)

1. Ivanovskiy tekstil'nyy institut.  
(Carding machines)

KARPOV, L.I., dotsent, kand.tekhn.nauk

Ways of improving carding. Tekst.prom. 20 no.3:42-45 Mr '60.  
(MIRA 14:5)

1. Ivanovskiy tekhnologicheskii institut.  
(Carding machines)

KARPOV, L.I., kand.tekhn.nauk; GOL'DSHMIDT, V.G., prepodavatel';  
GARIN, G.M.; BULYGIN, V.M.; SADOV, M.V., prepodavatel'

Consultation. Tekst.prom. 20 no.8:76-79 Ag '60. (MIRA 13:9)

1. Kostromskoy tekstil'nyy institut (for Gol'dshmidt). 2. Nachal'nik  
remontno-montazhnogo otdela Otdelochnoy fabriki Krasnovolzhskogo  
kombinata (for Garin). 3. Instruktor-rikhtovshchik Tbilisskoy  
fabriki kotonnykh chulok (for Bulygin). 4. Kiyevskoye  
uchilishche prikladnogo iskusstva (for SadoV).  
(Textile machinery)

KARPOV, L.I., kand.tekhn.nauk

Formation of the cotton sheet on the screen. Tekst. prom.

20 no. 11:25-26 N '60.

(MIRA 13:12)

(Cotton gins and ginning)

KARPOV, L.I., dotsent

Instead of replacing, modernize the rake distributor. Tekst.  
prom. 21 no.2:74-75 Ja '61. (MIRA 14:3)

1. Ivanovskiy tekstil'nyy institut.  
(Cotton machinery)



KARPOV, I.I.

Quality of finishing work. Gor.khoz,Mosk. 36 no.7:36-38 JI '62.  
(MIRA 16:1)

1. Zamestitel' nachal'nika Gosudarstvennogo arkhitekturno-  
stroitel'nogo kontrolya Moskvy.  
(Building Details)

KARPOV, L.I., kand.tekhn.nauk, dotsent; FEDULOV, I.G., assistant

Regulation of the speed of the bottom tapered drum of the pedal  
regulator of the scutching machine. Tekst.prom. 25 no.1:39-41  
Ja '65. (MIRA 18:4)

1. Ivanovskiy tekstil'nyy institut (for Karpov).

BAKHAREV, A.P., inzh.; KISLOV, V.G., inzh.; KARPOV, L.N., kand. tekhn. nauk;  
YAKUNIN, A.S., inzh.

The new UTM-5 small-size stand rd fuel pump. Trakt. i sel'khoz mash.  
no. 11:5-8 N '64. (MIRA 18:1)

1. Noginskiy zavod toplivnoy apparatury (for Kislov). 2. Tsentral'-  
nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy  
apparatury avtotraktornykh i statsionarnykh dvigateley (for Yakunin).

KARPOV, L. N.

"Origin of the Zemstvo Sanitary Organization in Russia and Work of the First (Public) Health Physicians." Cand Med Sci, Leningrad Sanitary Hygiene Medical Inst imeni I. V. Stalin, Moscow, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

KARPOV, L.N., kandidat meditsinskikh nauk

S.P. Krasheninnikov's contributions to studies of Siberian medicine.  
Vrach. delo no.1:95-97 Ja '57 (MLRA 10:4)

1. Kafedra istorii meditsiny (zav.-dots. M.A. Tikotin)  
Pervogo Leningradskogo meditsinskogo instituta.  
(KRASHENINNIKOV, STEPAN PETROVICH, 1713-1755)  
(SIBERIA--MEDICINE, PRIMITIVE--HISTORY)

KARPOV, L. N., Cand Tech Sci (diss) -- "Investigation of the influence of the shape of charge holes of the plunger pair of a force pump on the working process of the YaAZ engine". Leningrad, 1960. 18 pp (Min Agric RSFSR, Leningrad Agric Inst, Engineering Faculty), 280 copies (KI, No 14, 1960, 132)

BORISOV, S.G.; KARPOV, L.N.; SOKOLOV, Yu.M.; KHORIN, A.D.; VAGNER, A.A., nauchn. red.; RUNOVA, A.P., nauchn. red.; MARKOV, L.A., red.; KOGAN, F.L., tekhn. red.

[Catalog-handbook "Motor vehicles of the U.S.S.R.;" motor vehicles with special-purpose bodies and trailers] Katalog-spravochnik "Avtomobili SSSR"; avtomobili so spetsializirovannyi kuzovami i pritsepnoi podvizhnoi sostav. Moskva, Pt.2. 1963. 349 p. (MIRA 16:8)

1. Tsentral'nyy institut nauchno-tekhnicheskoy informatsii po avtomatizatsii i mashinostroyeniyu.  
(Motor vehicles--Catalogs) (Tractor trains--Catalogs)  
(Truck trailers--Catalogs)

KARPOV, L.N.

KAPELINSKIY, Yu.N.; POLYANIN, D.V.; MENZHINSKIY, Ye.A.; IVANOV, I.D.;  
 SERGEYEV, Yu.A.; KOSTYUKHIN, D.I.; DUDUKIN, A.N.; IVANOV, A.S.;  
 FINOGENOV, V.P.; ZAKHMATOV, M.I.; SOLODKIN, R.G.; DUSHEN'KIN, V.N.;  
 BOGDANOV, O.S.; SEROVA, L.V.; GONCHAROV, A.N.; KARKHIN, G.I.;  
 LYURSKIY, M.S.; PUCHIK, Ye.P.; SEROVA, L.V.; KAMENSKIY, N.N.;  
 SABEL'NIKOV, L.V.; FEDOROV, B.A.; GERCHIKOVA, I.N.; KARAVAYEV, A.P.;  
 KARPOV, L.N.; SHIPOV, Yu.P.; VLADIMIRSKIY, L.A.; KUTSENKOV, A.A.;  
 RYABININA, E.D.; ANAN'YEV, P.G.; ROGOV, V.V.; BELOSHAPKIN, D.K.;  
 SEYFUL'MULYUKOV, A.M.; PARFENOV, A.Ya.; SMIRNOV, V.P.; ALEKSEYEV,  
 A.F.; SHIL'DKROT, V.A.; CHURAKOV, V.P.; BORISENKO, A.P.; ISUPOV, V.T.;  
 ORLOVA, N.V., red.; GORYUNOVA, V.P., red.; BELOSHAPKIN, D.K., red.;  
 GEORGIYEV, Ye.S., red.; KOSAREV, Ye.A., red.; KOSTYUKHIN, D.I., red.;  
 MAYOROV, B.V., red.; PANKIN, M.S., red.; PICHUGIN, B.M., red.;  
 POLYANIN, D.V., red.; SOLODKIN, R.G., red.; UFIMOV, I.S., red.;  
 EKHIN, P., red.; SMIRNOV, G., tekhn.red.

[Economy of capitalist countries in 1957] Ekonomika kapitalisti-  
 cheskikh strah v 1957 godu. Pod red. N.V.Orlova, IU.N.Kapelinskogo  
 i V.P.Gorinova. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1958.  
 686 p. (MIRA 12:2)

1. Moscow. Nauchno-issledovatel'skiy kon'yunktturny institut.  
 (Economic conditions)



KARPOV, L. N.; GOKHMAN, V. M.

Geography in Canada. Vop.geog. no.44:205-217 '58.  
(Canada--Geography) (MIRA 12:5)

KAPELINSKIY, Yu.N.; POLYANIN, D.V.; ZOTOV, G.M.; IVANOV, I.D.; SERGEYEV, Yu.A.; MENZHINSKIY, Ye.A.; KOSTYUKHIN, D.I.; DUDUKIN, A.N.; IVANOV, A.S.; FINOGENOV, V.P.; ZAKHMATOV, M.I.; SOLODKIN, R.G.; DUSHEN'KIN, V.N.; BOGDANOV, O.S.; SEROVA, L.V.; GONCHAROV, A.N.; LYUBSKIY, M.S.; PUCHIK, Ye.P. [deceased]; KAMENSKIY, N.N.; SABEL'NIKOV, L.V.; GERCHIKOVA, I.N.; FEDOROV, B.A.; KARAVAYEV, A.P.; KARPOV, L.N.; VARTUMYAN, E.L.; SHIPOV, Yu.P.; ROGOV, V.V.; BOGDANOV, I.I.; VLADIMIRSKIY, L.A.; LEBEDEV, B.I.; AMAN'YEV, P.G.; TRINICH, F.A.; GOLOVIN, Yu.M.; MATYUKHIN, I.S.; SEYFUL'MULYUKOV, A.M.; SHIL'DKROFT, V.A.; ALEKSEYEV, A.F.; BORISENKO, A.P.; CHURAKOV, V.P.; SHASTITKO, V.M.; GERUS, V.G.; ORLOV, N.V., red.; KAPELINSKIY, Yu.N., red.; GORYUNOV, V.P., red. V redaktirovani priimani uchastnye: BELOSHAPKIN, D.K., red.; GEORGIYEV, Ye.S., red.; KOSAREV, Ye.A., red.; PANKIN, M.S., red.; PICHUGIN, B.M., red.; SHKARENKOV, Yu.S., red.; MAKAROV, V., red.; BORISOVA, K., red.; CHEPNELEVA, O., tekhn.red.

[The economy of capitalistic countries in 1958] Ekonomika kapitalisticheskikh stran v 1958 godu. Pod red. N.V.Orlova, Yu.N.Kapelinskogo, V.P.Goriunova. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 609 p. (MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy kon'yunktorny institut. (Economic conditions)

GOKHMAN, V.; KARPOV, L.; KOVALEVSKIY, V.; SEREBRYANNYY, L.; CHIZHOV,  
N.N., red.; VILENSKAYA, E.N., tekhn.red.

[U.S.A., Canada, Alaska, Greenland] SShA, Kanada, Aliaska,  
Grenlandiia. Moskva, Gos.izd-vo geogr.lit-ry, 1959. 55 p.  
(MIRA 12:6)

(United States) (Canada) (Alaska) (Greenland)

KARPOV, L.N.

Main features of Canada's regional economic development during  
the postwar period. Vop. geog. no. 53:85-100 '61. (MIRA 14:7)  
(Canada--Economic conditions)

APPROVED FOR RELEASE

KARPOV, L.N.; GOKHMAN, V.M.

Valuable work of Soviet scientists on the non-Soviet Far North.  
Izv. AN SSSR. Ser. geog. no.5:137-140 S-O '63. (MIRA 16:10)

GALKIN, B.I.; GRIGOR'YEV, V.M.; KALIK, A.M.; KARPOV, L.N.; LUR'YE, A.M.; MOMDZHI, G.S.; SMIRNOV, I.A.; KRYZHANOVSKIY, V.A., red.izd-va; PEN'KOVA, S.A., tekhn. red.

[Methods of testing iron ore deposits for germanium and other disseminated elements and the calculation of their resources] Metodika oprobovaniia zhelezorudnykh mestorozhdenii na germanii i drugie rasseiannye elementy i podscheta ikh zasobov. [By] B.I.Galkin i dr. Moskva, Gosgeoltekhizdat, 1963. 58 p. (MIRA 17:2)

GOKHMAN, V.M.; KARPOV, L.N.; KOVALEVSKIY, V.P.

Latest forecasting works on ensuring the productive forces of  
the U.S.A. and Canada with natural resources. Izv. AN SSSR.  
Ser. geog. no. 2:69-80 Mr-Ap '64. (MIRA 17:5)

1. Institut geografii AN SSSR.

ARMAND, D.L.; KAREV, L.N.; KOVALEVSKIY, V.P.

Conservation of natural resources in the foreign countries.

Izv. AN SSSR Ser. geog. no. 4:97-110 '64. (MIRA 17:8)

1. Institut geografii AN SSSR.



ANTIPOVA, A.V.; KARPOV, L.N.

Atlas of Canada. Geod. i kart. no.1:73-76 Ja '65.

(MIRA 18:3)

1. The first of these is the fact that the *Journal* is a very important source of information for the public. It is a source of information for the public in a number of ways. It is a source of information for the public in a number of ways. It is a source of information for the public in a number of ways.

... of labor resource development in the series of  
USSR. Ser. publ. no. 373-83. 19-10-83.

• 1990-1991 1992-1993 1994-1995 1996-1997 1998-1999 2000-2001 2002-2003 2004-2005 2006-2007 2008-2009 2010-2011 2012-2013 2014-2015 2016-2017 2018-2019 2020-2021 2022-2023 2024-2025 2026-2027 2028-2029 2030-2031 2032-2033 2034-2035 2036-2037 2038-2039 2040-2041 2042-2043 2044-2045 2046-2047 2048-2049 2050-2051 2052-2053 2054-2055 2056-2057 2058-2059 2060-2061 2062-2063 2064-2065 2066-2067 2068-2069 2070-2071 2072-2073 2074-2075 2076-2077 2078-2079 2080-2081 2082-2083 2084-2085 2086-2087 2088-2089 2090-2091 2092-2093 2094-2095 2096-2097 2098-2099 2100-2101 2102-2103 2104-2105 2106-2107 2108-2109 2110-2111 2112-2113 2114-2115 2116-2117 2118-2119 2120-2121 2122-2123 2124-2125 2126-2127 2128-2129 2130-2131 2132-2133 2134-2135 2136-2137 2138-2139 2140-2141 2142-2143 2144-2145 2146-2147 2148-2149 2150-2151 2152-2153 2154-2155 2156-2157 2158-2159 2160-2161 2162-2163 2164-2165 2166-2167 2168-2169 2170-2171 2172-2173 2174-2175 2176-2177 2178-2179 2180-2181 2182-2183 2184-2185 2186-2187 2188-2189 2190-2191 2192-2193 2194-2195 2196-2197 2198-2199 2200-2201 2202-2203 2204-2205 2206-2207 2208-2209 2210-2211 2212-2213 2214-2215 2216-2217 2218-2219 2220-2221 2222-2223 2224-2225 2226-2227 2228-2229 2230-2231 2232-2233 2234-2235 2236-2237 2238-2239 2240-2241 2242-2243 2244-2245 2246-2247 2248-2249 2250-2251 2252-2253 2254-2255 2256-2257 2258-2259 2260-2261 2262-2263 2264-2265 2266-2267 2268-2269 2270-2271 2272-2273 2274-2275 2276-2277 2278-2279 2280-2281 2282-2283 2284-2285 2286-2287 2288-2289 2290-2291 2292-2293 2294-2295 2296-2297 2298-2299 2300-2301 2302-2303 2304-2305 2306-2307 2308-2309 2310-2311 2312-2313 2314-2315 2316-2317 2318-2319 2320-2321 2322-2323 2324-2325 2326-2327 2328-2329 2330-2331 2332-2333 2334-2335 2336-2337 2338-2339 2340-2341 2342-2343 2344-2345 2346-2347 2348-2349 2350-2351 2352-2353 2354-2355 2356-2357 2358-2359 2360-2361 2362-2363 2364-2365 2366-2367 2368-2369 2370-2371 2372-2373 2374-2375 2376-2377 2378-2379 2380-2381 2382-2383 2384-2385 2386-2387 2388-2389 2390-2391 2392-2393 2394-2395 2396-2397 2398-2399 2400-2401 2402-2403 2404-2405 2406-2407 2408-2409 2410-2411 2412-2413 2414-2415 2416-2417 2418-2419 2420-2421 2422-2423 2424-2425 2426-2427 2428-2429 2430-2431 2432-2433 2434-2435 2436-2437 2438-2439 2440-2441 2442-2443 2444-2445 2446-2447 2448-2449 2450-2451 2452-2453 2454-2455 2456-2457 2458-2459 2460-2461 2462-2463 2464-2465 2466-2467 2468-2469 2470-2471 2472-2473 2474-2475 2476-2477 2478-2479 2480-2481 2482-2483 2484-2485 2486-2487 2488-2489 2490-2491 2492-2493 2494-2495 2496-2497 2498-2499 2500-2501 2502-2503 2504-2505 2506-2507 2508-2509 2510-2511 2512-2513 2514-2515 2516-2517 2518-2519 2520-2521 2522-2523 2524-2525 2526-2527 2528-2529 2530-2531 2532-2533 2534-2535</

KARPOV, Lev Nikolayevich; BELITSKAYA, Ye.Ya., red.

[Sanitary organization in the zemstvos in Russia]  
Zemskaia sanitarnaia organizatsiia v Rossii. Lenin-  
grad, Meditsina, 1964. 121 p. (MIRA 18:12)

KARPOV, L.P.

We are striving to save materials. Put' i put.khoz. 4 no.1:  
18-19 Ja '60. (MIRA 13:5)

1. Brigadir puti, stantsiya Maloarkhangel'sk, Moskovskoy dorogi.  
(Orel District--Railroads)

L 29832-66 EWT(d)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l)-

ACC NR: AP6012237 IJP(c) JD/HW

SOURCE CODE: UR/0129/66/000/004/0069/0070

AUTHOR: Karpov, L. P.

ORG: none

TITLE: Thermomechanical treatment of boring tools

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 4, 1966, 69-70

TOPIC TAGS: metal heat treatment, cutting tool, machine tool, tempering, flaw detector, austenite, durability, metal hardening, steel/ R18 steel, Kh12M steel, 1Kh18N9T steel, 3Kh13 steel, EMID-3 flaw detector

ABSTRACT: The possibilities for using thermomechanical treatment to increase the durability of cutting tools for coordinate boring is investigated. The cutting tools were made of bars of R18 steel with a diameter of 8 mm. The durability of cutting tools which had been hardened and triple-tempered was compared with cutting tools which had undergone thermomechanical treatment. Rods with a diameter of 4 mm and 6 mm and a length of 40 mm (see Fig. 1) were heat-treated under the following conditions: heating at 1280C in salt for 60 sec; cooling in fused alkali at 500C for 3 sec; deformation; quenched in oil; and triple-tempering at 560--570C for 1 hr. Thermomechanical treatment was found to increase the durability of boring tools by 20--30%. The optimum temperature for deformation of the head is 500C. The effect of thermomechanical treatment is to change the fine structure of the steel and the

Card 1/2

UDC: 621.937:621.785:539.374

L 29832-66

ACC NR: AP6012237

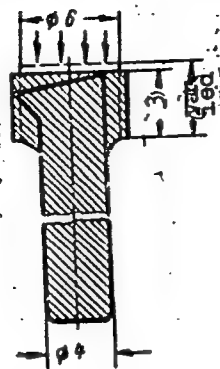


Fig. 1. Diagram of deformation of head of boring tool in state of supercooled austenite.

nature and distribution of dislocations. Orig. art. has: 1 diagram.

SUB CODE: 11/

SUBM DATE: none/

ORIG REF: 002

Card 2/2 *fv*

KARPOV, L. S.

Dams

Improving the construction of buttresses of wooden dams. Les. prom. 12 no. 3, 1952

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

KARPOV, L.S.

Experimental investigation of metal-wooden trusses with metal inserts  
in joints. Trudy LTI no.50:72-86 '59. (MIRA 14:3)  
(Trusses)



KARPOV M.

KARPOV, M., starshiy serzhant.

Collapsible testing rod. Voen-inzh.zhur. 101 no.9:41 S '57.

(MERA 10:9)

(Mines, Military)

KARPOV. M.

30754

Souryemyennaya nauka o stroyenii matyerii. molodoy Bol'shcheyevik, 1949  
No. 19, S. -60-67

SO: LETOPIS' NO. 34

- [illegible]

KARPOV, M.

Finish planing instead of scraping and grinding. Tr. from the German.  
p. 460.

STROJIRENSKA VYROBA, Prague, Vol. 3, no. 11, Nov. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,  
June 1956, Uncl.

GREVENSCHIKOV, V., (Leningrad); KARPOV, M., kandidat filosofskikh nauk

The calendar and chronology. Nauka i zhizn' 22 no.7:41-42 J1 '55.  
(Calendar) (MLRA 8:9)

KARPOV, M. (Kerch, Krymskoy oblasti)

Our "Storehouse" of iron ore. Znan.ta pratsia no.5:10-11  
My '59. (MIRA 12:10)

(Kerch--Iron mines and mining)

8.1.1.1.1.

the compressed wood parts for textile machinery. Izv. vys. ucheb. zav.;  
bibl. fak. prom. no. 3:156-158 195.

(MIRA 28:8)

1. V. ronezhskiy politekhnicheskiy institut.

KARPOV, M. F.

KARPOV, M. F.: "The clinical diagnosis of primary lung cancer." Gor'  
kiy State Medical Inst imeni S. M. Kirov. Gor'kiy, 1956.  
(Dissertation for the Degree of Candidate in Medical Sciences)

Source: Knizhnaya letopis' No. 28 1956 Moscow



KARPOV, M.F., kand. med. nauk

Surgical treatment of thyrotoxicosis. Khirurgiia 40 no.7:109-113  
Jl '64. (MIRA 18:2)

1. Klinika gosptal'noy khirurgii (zav. - chlen-korrespondent AMN  
SSSR zasluzhennyy deyatel' nauki prof. B.A. Korolev) lechebnogo  
fakul'teta Gor'kovskogo meditsinskogo instituta imeni Kirova.

L 17741-63

EWP(r)/EWT(m)/BDS AFFTC

ACCESSION NR: AP3006953

S/0021/63/000/008/1018/1021

AUTHOR: Karpov, M. I.

TITLE: On free vibrations of a stiffened cylindrical shell

SOURCE: AN UkrSSR. Dopovidi, no. 8, 1963, 1018-1021

TOPIC TAGS: free shell vibration, stringer stiffened shell vibration, stiffened shell fundamental frequency, stiffened shell natural frequency, shell frequency spectrum

ABSTRACT: The solution of the problem of the free vibration of a stiffened shell with discrete spacing of stiffeners involves considerable mathematical difficulties; the qualitative analysis of the frequency spectrum is almost impossible. A method of solution based on exact satisfaction of the vibration equations of a stiffened shell is proposed. The method furnishes an expression for frequencies in the form of a transcendental equation, which is convenient for the qualitative investigation of the frequency spectrum and for numerical computations. The problem of the free vibration of a circular cylindrical shell stiffened by equally spaced stringers with identical

Card 1/2

CL 17741-63

ACCESSION NR: AP3006953

geometric and elastic characteristics and supported on its faces by diaphragms perfectly rigid in their planes but easily deformable in the transverse direction is treated as a contact problem in the theory of shells and beams. It is assumed that the contact between the skin and stringers does not prevent the slipping of the stringers on the skin and their free twisting about the line of contact, but ensures the deflection of the skin and stringers as a whole. The equations of vibration of a plain (nonstiffened) shell and of an isolated stringer are taken as the initial ones. The interrelations among natural and fundamental frequencies of the plain shell, single stringer, and stiffened shell as well as the frequency spectrum of the shell are analyzed. The paper was presented by A. D. Kovalenko, Academician, Academy of Sciences, Ukrainian SSR. Orig. art. has: 5 formulas.

ASSOCIATION: Insty\*tut mekhaniky\* AN URSR (Institute of Mechanics, AN URSR)

SUBMITTED: 27Aug62

DATE ACQ: 27Sep63

ENCL: 00

SUB CODE: AP  
Card 2/2

NO REF SOV: 003

OTHER: 000

L 10500-63

EWI(r)/EWI(m)/BDS--APFIC/APGC--EM

ACCESSION NR: AP3000456

8/0198/63/009/003/0270/0274

AUTHOR: Karpov, M. I. (Kiev)

TITLE: On one method of determining the stress-strain state of a shell reinforced by unequally spaced stiffening ribs

SOURCE: Prikladna mekhanika, v. 9, no. 3, 1963, 270-274

TOPIC TAGS: cylindrical shell, stringer-stiffened cylindrical shell, shell strain, arbitrarily spaced stringers, shell contact problem

ABSTRACT: The problem of the strength of a circular cylindrical shell stiffened by arbitrarily spaced stringers having different geometric and elastic parameters is treated as a contact problem of the shell and beam theories. The shell is supported on both faces by diaphragms which are perfectly rigid in their planes but easily deformable in the axial direction of the shell. The shell is acted upon by axial forces and bending moments at the faces and carries a surface loading whose components are given by trigonometric series. The equilibrium equations of a plain (unstiffened) cylindrical shell and of a beam are taken

Card 1/2

L 10500-63

ACCESSION NR: AP3000456

as initial equations. A system of ordinary differential equations is derived by applying an operational method based on integral transformation with finite limits of the equilibrium equations and by taking boundary conditions into account. By using the symbolic method, expressions describing the state of strain of a plain and of a stringer-stiffened cylindrical shell are obtained from this system in the form of a single trigonometric Fourier series. The proposed method is advantageous in that it is not necessary to solve an infinite number of algebraic equations because there are  $4K$  unknowns ( $K$  = number of stringers). Moreover, the method can be regarded as an exact one, since it is based on strict compliance with the equilibrium equations of the stiffened shell. Orig. art. has: 9 formulas.

ASSOCIATION: Insty\*tut mekhaniky\* AN URSR (Institute of Mechanics, AN URSR)

SUBMITTED: 08Dec62

DATE ACQ: 19Jun63

ENCL: 00

SUB CODE: AP

NO REF SOV: 004

OTHER: 000

ss/10

Card 2/2

S/0198/64/010/001/0032/0039

ACCESSION NR: AP4010372

AUTHOR: Karpov, M. I. (Kiev)

TITLE: Determination of eigen frequencies of cylindrical shells reinforced by variably spaced rigid ribs

SOURCE: Prykladna mekhanika, v. 10, no. 1, 1964, 32-39

TOPIC TAGS: shell, cylindrical shell, elastic oscillation, reinforced shell, shell oscillation

ABSTRACT: On the basis of equations for the oscillations of nonreinforced shells given by M. V. Nikulin (Vliyaniye osevykh usiliy na chastoty sobstvennykh kolebaniy tsilindricheskoy obolochki, Sb. st. pod redaktsiyey V. M. Darevskogo, Prochnost' tsilindricheskikh obolochek, Oborongiz, M., 1959) the author discusses as a contact problem of the shell theory and the theory of open profile rods the problem of free oscillations of cylindrical shells supported by stringers of different geometry and unequal elasticity, arbitrarily spaced along the shell. The solution of the shell oscillation equation is sought in the form of the product of three functions, and the equation for frequency is given in two forms, as an eight-order determinant and as a  $k$ -th order determinant ( $k$ -the number of stringers). The

Card 1/2

ACCESSION NR: AP4010372

first form is convenient for numerical calculations while the second is suitable for a qualitative analysis of the frequency spectrum. The spectrum of the single-stringer reinforced shell has been studied in detail. It turns out to be discrete and may contain eigen frequencies of the nonreinforced shell. The influence of the elastic and geometric properties of the stringer and of its location on the magnitude of the eigen frequencies is also shown. Orig. art. has: 22 formulas and 1 table.

ASSOCIATION: Insty\*tut mekhaniki AN URSR (Institute of Mechanics AN URSR)

SUBMITTED: 14Jan63

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: AP

NO REF SOV: 004

OTHER: 000

KARPOV, M. K.

PA 241T23

USSR/Medicine - Immunology

Jan 53

"The Action of Specific Immune Sera on *Cl. perfringens*," M. K. Karpov, Mil Med Acad imeni S. M. Kirov

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 1, p 80

Specific *Cl. perfringens* (I) antitoxic and antibacterial sera do not exert a bactericidal or bacteriostatic action on I. The direct action of these sera on I does not bring about any noticeable changes of the morphology or cultural, serological and toxicogenic properties of cultures of this microorganism.

241T23

---



KARPOV, M.K.

2176 Influence of the cortex on lability. M. K. Karpov, V. A. Lebedevskii, and A. V. Minosov. *Zh. Mikrobiol.*, 1955, 78-82, No. 3. Refers. *Zh. Biol.*, 1956, Abstr. No. 74442. Four rabbits received 25 injections of 9 ml. of 25%  $MgSO_4$  solution into the thigh muscles on both sides. The injections were made under strictly constant conditions, always by the same person, with, in addition, a supplementary conditioning stimulus (bell). Four control rabbits received the same injections, but without the conditioning stimulus. Subsequently, each rabbit was given 50 mouse units of tetanus toxin, the experimental animals being given the toxin under exactly the same conditions as for the  $MgSO_4$ . The control rabbits rapidly developed signs of local tetanus; no evidence of toxin action was present in the experimental animals during this period. Evidently, cortical impulses are able to inhibit the action even of such a potent non-conditioning stimulus as tetanus toxin. (Russian) M. LUGAN

Chair Neurophysiology, Med. Med. Acad. in S.M. Kirov

SHVARTSMAN, Ya.S.; KAPTON, M.K.; LUYEV, A.S.

Immunological reactions of isolated cells. Report No. 1:  
Antibody synthesis by single cells isolated from animals  
immunized with two antigens. Zhur. mikrobiol., epid. i  
Immun. 41 no.10:45-47 '64. (MIRA 27:5)

L. Leningradskiy institut vaktsin i syporotok.

*KARPOV, M. M.*  
USSR/General Division. General Problems. Philosophy. Methodology.

A-1

Abs Jour: Referat Zh.-Biol., No 17, 1957, 72345

Author : M. M. Karpov

Inst : -

Title : On the Internal Laws of the Development of Natural Science.

Orig Pub: Vopr. filosofii, 1957, No 1, 58-68

Abstract: No abstract.

Card : 1/1

-1-

KARPOV, M.M.

KOZHEVNIKOVA, Z.N.; ROLLE, Ye.N.; PUSHILOV, M.G.; BUTORINA, I.V.;  
ZAV'YALOVA, M.A.; ~~KARPOV, M.M.~~

Second Leningrad municipal conference of young surgeons. Vest.khir.  
78 no.1:140-145 Ja '57. (MLBA 10:3)  
(SURGERY)

UGORETS, I.I.; GLAZUNOV, A.A.; SYROMYATNIKOV, I.A.; KASHUNIN, I.S.; POSTNIKOV,  
N.A.; RADTSIG, V.A.; UL'YANOV, S.A.; GRUDINSKIY, P.G.; VASIL'YEV, A.A.;  
KUVSHINSKIY, N.N.; BAPTIDANOV, L.N.; TARASOV, V.I.; KRIKUNCHIK, A.B.;  
SHAPIRO, A.B.; BIBIKOV, V.V.; DVOSHIN, L.I.; KLINGOF, I.D.; KARPOV,  
M.M.; USPENSKIY, B.S.; CHALIDZE, I.M.; BLOCH, Ya.A.; SHMOTKIN, I.S.

Iosif Iakovlevich Gumin; obituary. Elek.sta.26 no.12:58 D '55.  
(Gumin, Iosif Iakovlevich, 1890-1955) (MLRA 9:4)

KARPOV, Mikhail Mikhaylovich; ROTOVA, R.S., red.; VORONINA, R.K.,  
tekh. red.

[Dialectical materialism and natural science] Dialekticheski  
materializm i estestvoznaniye. Moskva, Gos. izd-vo "Vysshaia  
shkola," 1961. 46 p. (MIRA 15:2)  
(Dialectical materialism) (Natural history)

KARPOV, M.M.

Leningrad Urban Conference devoted to Acute Appendicitis. Vest.  
khir. 87 no.11:143-145 N '61. (MIRA 15:11)  
(APPENDICITIS)

KARPOV, M.M., kand. filosof. nauk (Rostov-na-Donu)

Stimuli of scientific creativeness. Priroda 51 [i.e. 52]  
no.5:52-60 '63. (MIRA 16:6)

(Scientists)



KARPOV, M.M. (Sovjetunio)

Law of the accelerating development of natural sciences. Term kud  
kozl 7 no.12:538-540 D '63.

KARPOV, Mikhail Mikhaylovich; POTEKIN, A.V., dots., otv. red.;  
KORNILOV, Ye.A., red.; PAVLICHENKO, M.I., tekhn. red.

[Basic principles governing the development of the natural  
sciences] Osnovnye zakonomernosti razvitiia estestvoznaniia.  
Rostov-na-Donu, Izd-vo Rostovskogo univ., 1963. 300 p.  
(MIRA 17:3) /

XARPOV, M.N., inzh.

Redesigning the cooling systems of gasket packings on centrifugal pumps at the Tayba coal preparation plant. Obog. i brik. ugl. no.7: 56-58 '58. (MIRA 12:7)

1. Taybinskaya ugleobogatitel'naya fabrika.  
(Tayba--Coal preparation) (Centrifugal pumps)

*KARPOV M.N.*

VASIL'YEV, Dmitriy Konstantinovich; ~~KARPOV M.N.~~, nauchnyy red.; LAPIN, V.I.,  
red.; KAMOLOVA, V.M., tekhn.red.

[Testing marine boiler installations] Ispytanie sudovykh parovykh  
ustanovok. Leningrad, Gos.soiuznoe izd-vo sudostroitel.promyshl., 1957.  
113 p. (MIRA 10:12)

(Boilers, Marine)

KARPOV, M.S., inst.

Possibility of using the electric conductivity method of measuring  
the density of coal pulp flowing through pipelines. Trudy  
VNIIGidrouglia no.4:18-27 '64. (MIRA 18:3)

1. Sibirskiy metallurgicheskiy institut.

section of water, than alfalfa sod. Jainfoin roots also had  
more nodules and they were several times larger than those  
of alfalfa. -- A. A. Shchibrya.

CARD://

Country : USSR  
Category: Cultivated Plants. Fodders.

M

Abs Jour: RZhBiol., No 22, 1958, No 100342

Author : Karpov, M.P.  
Inst :                       
Title : Esparcet in Kuybyshevskaya Oblast'.

Orig Pub: S.kh. Povolzh'ya, 1957, No 12, 23-24

Abstract: In Kuybyshevskaya Oblast' the best varieties of esparcet are Kinel'skiy 328 and Peschanyy 1251. According to the data of Kuybyshevskiy Agricultural Institute, esparcet contains more protein than alfalfa. The sowing rate of esparcet seeds in broadcast sowing is 75-90 centners/ha; in wide drill - 35-40. The seed crop may be

Card : 1/2

M-92

Country : USSR  
Category: Cultivated Plants. Fodders.

M

**APPROVED FOR RELEASE: 06/13/2000** **CIA-RDP86-00513R000720830007-**

Abs Jour: RZhBiol., No 22, 1958, No 100342

gathered after a correct choice of the date of harvesting, i.e., with the browning of 75-80% of the beans on the main clusters. The best method of harvesting is the two-stage method. -- Ye. A. Okorokova

Card : 2/2

KARPOV, Mikhail Petrovich, kand. ekon. nauk, starshiy prepodavatel';  
CHAYEVSKAYA, N. [Chaiyevs'ka, N.], red.; LEVCHENKO, O., tekhn. red.

[Improving production quality, eliminating defects] Pidvyshchuvaty  
yakist' produktsii, pratsluvaty bez braku. Kyiv, Derzh. vyd-vo  
polit. lit-ry URSR, 1961. 45 p. (MIRA 14:11)

1. Kiyevskiy institut narodnogo khozyaystva (for Karpov).  
(Ukraine--Production control)

KARPOV, M.S.; VERNIGOR, V.A.; BAT'KAYEV, R.Ya.; POPENKO, A.K.; IL'INA, K.A.;  
IMRANOV, N.S.; PERSHINA, E.P.

Microbiological processes in surface silage. Trudy Inst.mikrobiol.  
i virus.AN Kazkah.SSR 6:133-140 '62. (MIRA 15:8)  
(ENSILAGE--MICROBIOLOGY)



KARPOV, M.S.; YEKIMOVA, R.N.

Improvement of silage starters (preparation and application  
of dry silage starters. Trudy Inst. mikrobiol. i virus. AM  
Kazakh. SSR 7:27-32 '63 (MIRA 16:12)

KARPOV, Mikhail Stepanovich, 1974-

Karakul sheep breeding in its present state. Moskva, Novaya derevnia, 1928. 32 p.  
(53-96511)

SP375.K335

KARPOV, M. S.

Karnov, M. S. "The pulmonary gas exchange of camels at rest",  
Sbornik po zootekhnii i parazitologii, Tashkent, 1948, pp. 52-63, - Bibliog: 18 items.

SO: U-3261, 10 April 53 (Letopis 'Zhurnal 'nykh Statey No. 11, 1949)

KARPOV, M. S.

(2)

Consumption of carotene by sheep from field fodder in the desert of Sary-Ishk-Otrau (southern Balkhash area). M. S. Karpov. *Vestnik Akad. Nauk Kazakh. S.S.R.* 10, No. 8 (Whole No. 101), 55-62 (1953).—The av. carotene content in the vegetation of this area ranges from 25 to 31 mg. per kg. in the spring to 4.3 in the winter. The daily consumption of the growth by sheep ranges from 6 kg. in the spring and summer to 4.6 kg. in late winter. The period covering spring and summer assures adequate supply of carotene to the animals, but the winter period definitely calls for feed supplementation.

G. M. K.

Karpov, M.S.

Chemical composition of pasture vegetation of the Gory-Islik-Ottan desert. M. S. Karpov and Kh. Kh. Makhmudov. Izv. Akad. Nauk Kazakh. S.S.R. No. 123, Ser. Biol. No. 7, 60-69 (1954) (in Russian). — A complete listing of analysis of common high-Asian desert plants found in the Gory-Islik-Ottan location for H<sub>2</sub>O, proteins, fat, cellulose, and ash content. Generally the plants contain some 70-100% more cellulose than lignin; the content of the latter rises from spring to fall. A similar relation is found between cellulose (and hemicellulose) and sugars. The sum of hemicellulose and sugars is close to the content of lignin. The grasses are generally richest in nutrients during the spring months. O. M. Khodapoll.

KARPOV, M.S.

Mineral composition of pasture vegetation on sandy lands of the  
northern desert zone of Kazakhstan. Vest. AN Kazakh. SSR 14  
no.9:100-107 S '58. (MIRA 11:11)  
(Sary-Ishik-Otrau--Pastures and meadows)  
(Plants--Chemical composition)

KARPOV, M.S.

Fermentation of wheat straw by the method of cold ensilage. Trudy  
Inst. mikrobiol. i virus. AN Kazakh. SSR 3:111-117 '59.

(MIRA 13:2)

(Straw as feed) (Ensilage)

KARPOV, Mikhail Stepanovich; BYKOV, B.A., doktor biolog.nauk, otv.red.;  
KOROTOVSKIY, M.P., red.; PROKHOROV, V.P., tekhn.red.

[Pasture forage of sandy deserts of the southern Lake Balkhash  
region] Pastbishchnye korma peschanykh pustyn' Iuzhnogo Pri-  
balkhash'ia. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1960.  
246 p. (MIRA 14:1)  
(Balkhash Lake region--Pastures and meadows)



SHALIS, D.I., otv. red.; VETUGINA, L.A., red.; IZVALDINOV,  
A.N., red.; KARPov, M.S., red.; SHIGITEVA, E.Sh., red.;  
ALEKSANDRITSKIY, V.V., red.

[Transactions of the Conference on the Microbiology of  
Feed. 1 Trudy Soveshchaniya po mikrobiologii kormov.  
Alma-Ata, Izd-vo AN Kaz. SSR, 1961. 126 p.

(MIRA 17:11)

1. Soveshchaniye po mikrobiologii kormov, Alma-Ata, 1959.
2. Institut mikrobiologii i virusologii AN KazSSR (for  
Karpov, Shamis).

KARPOV, M.S.

Generally available biological method for preparing straw for feed.  
Trudy Inst. mikrobiol. i virus. AN Kazakh. SSR 4:107-113 '61.

(STRAW AS FEED)

(MIRA 14:4)

CHUKANOV, N.K.; KARPOV, M.S.

Alfalfa siloing conditions, Izv. AN SSSR, Ser. biol. no.6:  
899-905 N-D '63. (MIRA 17:2)

1. Institut mikrobiologii i virusologii, Alma-Ata.

AUTHOR: KARPOV, M.V., OVČINNIKOV, E.P., RATNER, B.S. PA - 2257  
 TITLE: The Stabilizing of the Energy of Electrons in a Sychrotron  
 for 30 MeV. (Russian).  
 PERIODICAL: Atomnaia Energiia, Vol 2, Nr 2, pp 140 - 145, 1957 (U.S.S.R.)  
 Received: 3 / 1957 Reviewed: 4 / 1957  
 ABSTRACT: The authors had the task of building an apparatus which main-  
 tains an energy of electrons constant with a minimum accuracy  
 of 0,5 %. The stabilizing apparatus described here is an elec-  
 tronic follower system which consists of donor coiling (trans-  
 mitter coiling ?), integrator, amplitude discriminator, form-  
 ing amplifiers, submodulator, feed sources, and control block.  
 The block scheme of this apparatus is shown in form of a drawing  
 just as the wiring diagrams of the integrator and the dis-  
 criminator. Integration was carried out by means of a tube inte-  
 grator. The amplifier with parallel current coupling has an  
 amplification coefficient of  $k_0 = 4000$ . The low reactive coupling  
 ( $\beta = 1$ ) warrants a very exact integration with equivalent time  
 constant  $\tau = RC(k_0 + 1)$ . The maximum error of integration is  
 less than 0,01 %. In the wiring diagram of the parallel current  
 amplifier measures are provided to extend its working stability.  
 In the here described stabilizing device discriminators are used  
 on the basis of electro-vacuum diodes. The instability of the dis-  
 criminator due to the aging of tubes and to other causes is

Card 1/3

PA - 2257

The Stabilizing of the Energy of Electrons in a Synchrotron for 30 MeV.

compensated by an additional diode, by which the stability of the discriminators is increased about tenfold. The authors gave their special attention to the increase of the stability of the operation of contrivance which assumes the moment of switching-on the high-frequency generator. The signals emanating from the output of the forming amplifiers with the amplitude of 15 V reach a trigger with two stable states and set it in motion. From the trigger cascade then a rectangular momentum with an amplitude of 100 V reaches the modulator of the high-frequency generator. The required high operating accuracy of the whole apparatus requires extremely stable feed sources and corresponding control elements. The verification of the operation of the stabilizing system was realized by making use of the yield of the reaction  $\text{Cu}^{63}(\gamma, n)\text{Cu}^{62}$ ; on this occasion the steep part of the excitation curve was used. An investigation of the stability of energy which was done for four consecutive days showed that the energy  $E_m$  remained constant up to  $\pm 30$  MeV. For the control of the sensitivity of the stabilizing contrivance for a change of the amplitude of the magnetic field measurements of the results of the reaction  $\text{Cu}^{63}$

Card 2/3

$(\gamma, n)\text{Cu}^{62}$  were carried out with an assumed value of energy.

PA - 2257

The Stabilizing of the Energy of Electrons in a Synchrotron  
for 30 MeV.

In conclusion gauging of the energy scale is discussed.

ASSOCIATION: Not given.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 3/3

21(2)

SOV/56-35-5-7/56

AUTHORS:

Kel'man, V. M., Kolgunov, V. A., Karpov, M. V.

TITLE:

The Application of Magnetic Slits for the Creation of Circular Trajectories of Charged Particles (Primeneniye magnitnykh shcheley dlya formirovaniya krugovykh trayektoriy zaryazhennykh chastits)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 30, Nr 5, pp 1113-1115 (USSR)

ABSTRACT:

The authors of the present paper investigated an electron-optical system consisting of magnetic slits with a magnetic field increasing rapidly in the direction of the periphery but not leading to defocusing in a vertical direction, which bends the trajectories of charged particles, rendering them nearly circular. The vector potential in point P of this system has the form

$$A_z = -\frac{I}{c} \ln \frac{(r/a)^{2n} - 2(r/a)^n \cos n\varphi + 1}{(r/a)^{2n} + 2(r/a)^n \cos n\varphi + 1}; \quad A_r = A_\varphi = 0, \quad A = A_z.$$

(I = current in every conductor, r = distance between the axis of the system O and P, a = distance from O to conductor,

Card 1/3

80V/56-35-5-7/56

The Application of Magnetic Slits for the Creation of Circular Trajectories of Charged Particles

$2n$  = the number of conductors, and  $\varphi$  = the polar angle). For the momentum it holds that  $P = \partial L / \partial \dot{\varphi} = m\dot{\varphi} + eA/c = m\dot{\varphi}_0 + eA_0/c = \text{const}$ ; the Lagrangian  $L = \frac{m}{2} (\dot{r}^2 + \dot{\varphi}^2 + \dot{z}^2) + eA/c$ . Scheme and schematic drawing of such a device which can be used in an accelerator with a constant guiding field are given (Figs 1, 2). The experiments carried out with this device are described. The device consisted of 16 poles arranged in a circle and having 200 windings each; the distance between the gun and the edge of the poles  $\sim 4-5$  cm, at radial oscillation of the order of 2 cm and vertical oscillations  $\sim 5$  cm. The electron energy amounted to 5 keV (5 - 10 A). The average depended in a high degree on the distance between gun and pole. The phenomenon had the shape of a slightly curved band of 1 - 3 mm breadth and 10 - 20 mm height. Experiment consisting of 32 poles gave similar results. There are 2 figures and 4 Soviet references.

Card 2/3



SOV/56-35-5-7/56  
The Application of Magnetic Slits for the Creation of Circular Trajectories  
of Charged Particles

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut Akademii nauk SSSR  
(Leningrad Physico-Technical Institute of the Academy of  
Sciences, USSR)

SUBMITTED: May 16, 1958

Card 3/3

KARPOV, M.V.; OVCHINNIKOV, Ye.P.; RATNER, B.S.

Stabilization of the electron energy in a 30 Mev. synchrotron.  
Trudy Fiz. Inst. 19:158-166 '63. (MIRA 16:8)

(Synchrotron)

ACC NR: AR6035395

(N)

SOURCE CODE: UR/0398/66/000/009/V026/V026

AUTHOR: Karpov, M. V.

TITLE: Isosurface gradients in the motion of a signal source on a circular orbit

SOURCE: Ref. zh. Vodnyy transport, Abs. 9V191

REF. SOURCE: Sb. Vychisl. tekhn. na morsk. transp. M., Transport, 1966, 106-115

TOPIC TAGS: navigation aid, Doppler navigation equipment, measuring apparatus

ABSTRACT: The author considers the calculation of the isosurface gradient when the signal source moves along a circular orbit. It is noted that the rate of change of the Doppler shift of frequency remains constant on such isosurfaces. A formula is derived for the gradients of the isosurfaces, and the limits of variation of the values of the gradients on the surface of sphere in the visibility region are considered. An example is presented on the calculation of the necessary accuracy for the measurement of the rate of change of the Doppler frequency. 3 illustrations. [Translation of abstract]

SUB CODE: 09, 17

Card 1/1

UDC: 629.12:621.396.6

KARFOV, M. Ya., Engineer , SEREBRYAKOV, V. M., Engineer

"Increasing the Durability of Tools." Stanki I Instrument Vol. 15, Nos. 7-8, 1944,

BR 52059019